



SEQUENCE LISTING

<110> SHIRAI, Tomoyuki  
ASAMOTO, Makoto  
HOKAIWADO, Naomi

<120> Carcinogen-hypersensitive rat

<130> 671302-3004

<140> 10/784, 633

<141> 2004-02-23

<150> JP P2001-253241

<151> 2001-08-23

<150> JP 2001-253241

<151> 2001-08-23

<160> 6

<170> PatentIn Ver. 2.1

<210> 1

<211> 1485

<212> DNA

<213> Rattus norvegicus

<220>

<221> CDS

<222> (32).. (883)

<400> 1

cgcagtgcca gggaggtgtg aatgaggcag g atg aac tgg aca ggt cta tac 52

Met Asn Trp Thr Gly Leu Tyr

1

5

acc ttg ctc agt ggc gtg aat cgg cat tct aca gcc att ggc cga gta 100  
 Thr Leu Leu Ser Gly Val Asn Arg His Ser Thr Ala Ile Gly Arg Val  
 10 15 20

tgg ctg tcc gtc atc ttt atc ttc aga atc atg gtg ctg gtg gtg gct 148  
 Trp Leu Ser Val Ile Phe Ile Phe Arg Ile Met Val Leu Val Val Ala  
 25 30 35

gca gag agc gtg tgg ggt gat gag aag tct tct ttc atc tgt aac acc 196  
 Ala Glu Ser Val Trp Gly Asp Glu Lys Ser Ser Phe Ile Cys Asn Thr  
 40 45 50 55

ctc cag ccg ggc tgt aac agc gtc tgc tat gac cat ttt ttc ccc atc 244  
 Leu Gln Pro Gly Cys Asn Ser Val Cys Tyr Asp His Phe Phe Pro Ile  
 60 65 70

tcc cat gtg cgc ctg tgg tcc ctg caa ctc atc ttg gtt tcc acc cca 292  
 Ser His Val Arg Leu Trp Ser Leu Gln Leu Ile Leu Val Ser Thr Pro  
 75 80 85

gct ctc ctc gtg gca atg cac gtg gct cac caa caa cac ata gaa aag 340  
 Ala Leu Leu Val Ala Met His Val Ala His Gln Gln His Ile Glu Lys  
 90 95 100

aaa atg cta cgg ctt gag ggg cac ggg gac ccc ctt cac ctg gaa gag 388  
 Lys Met Leu Arg Leu Glu Gly His Gly Asp Pro Leu His Leu Glu Glu  
 105 110 115

gta aag agg cac aag gtg cac atc tca ggg aca ctg tgg tgg acc tat 436  
 Val Lys Arg His Lys Val His Ile Ser Gly Thr Leu Trp Trp Thr Tyr  
 120 125 130 135

gtc atc agt gtg gtg ttc cgg ctg ctg ttt gag gct gtc ttc atg tat 484  
 Val Ile Ser Val Val Phe Arg Leu Leu Phe Glu Ala Val Phe Met Tyr  
 140 145 150

gtc ttc tat ctg ctc tac ccg ggc tat gcc atg gtg cgg ctg gtc aag 532

Val Phe Tyr Leu Leu Tyr Pro Gly Tyr Ala Met Val Arg Leu Val Lys  
155 160 165

tgt gag gcc ttc ccc tgc ccc aac acg gtg gac tgc ttc gtg tcc cgc 580  
Cys Glu Ala Phe Pro Cys Pro Asn Thr Val Asp Cys Phe Val Ser Arg  
170 175 180

ccc act gag aaa acc gtc ttc act gtc ttt atg ctc gcc gcc tcc ggc 628  
Pro Thr Glu Lys Thr Val Phe Thr Val Phe Met Leu Ala Ala Ser Gly  
185 190 195

atc tgc att atc ctc aac gtg gcg gag gtg gtg tac ctc atc atc cgg 676  
Ile Cys Ile Ile Leu Asn Val Ala Glu Val Val Tyr Leu Ile Ile Arg  
200 205 210 215

gcc tgt gcc cgc cgt gct cag cgc cgc tcc aat ccg ccc tcc cgc aag 724  
Ala Cys Ala Arg Arg Ala Gln Arg Arg Ser Asn Pro Pro Ser Arg Lys  
220 225 230

ggc tcg ggc ttc ggc cac cgc ctc tca cct gaa tac aag cag aat gag 772  
Gly Ser Gly Phe Gly His Arg Leu Ser Pro Glu Tyr Lys Gln Asn Glu  
235 240 245

atc aac aag ctg ctg agc gag cag gat ggc tct ctg aaa gac ata ctg 820  
Ile Asn Lys Leu Leu Ser Glu Gln Asp Gly Ser Leu Lys Asp Ile Leu  
250 255 260

cgc cgc agt cct ggc act ggg gcc ggg ctg gct gag aag agc gac cga 868  
Arg Arg Ser Pro Gly Thr Gly Ala Gly Leu Ala Glu Lys Ser Asp Arg  
265 270 275

tgc tca gcc tgc tga tgccgagtac caggcaacct cccatccaac ccttcctca 923  
Cys Ser Ala Cys  
280

ccccaccag gcctgccct ccttctccta tgctggtgag caggcctctg cctcctaggg 983

attactccat cāaaccttcc ctccctccct actcccttc ctcagagagt cttctgtcaa 1043  
 agacctggcc ggcttgggag tggggāgcca cttctgcacc agggctcaag gttattgagg 1103  
 gtgtgggcaa ttctttctgc ctataccctt tcctcttccc tctccctgag atgagggatg 1163  
 agatgttctg aagggttttc caattaggaa acgtaatctt aaccccatg ctgtcaggta 1223  
 cccactttg ggagtcatgt cagtggggag ggctgtgagc aagcagagtg gaggggggc 1283  
 tctgcactgt ggatggagaa gggaggggag cttgccttgc tgcctgtac aaggaaaagg 1343  
 aggacacatc taggggtggg gagttctgga gggagaagca ggcagataaa tcagagtggg 1403  
 ggttggtcag ggctgcccc agtccccagt tccaaggcc tctctctctg aaaatgttac 1463  
 acattaaaca ggattttaca gt 1485

<210> 2

<211> 283

<212> PRT

<213> Rattus norvegicus

<400> 2

Met	Asn	Trp	Thr	Gly	Leu	Tyr	Thr	Leu	Leu	Ser	Gly	Val	Asn	Arg	His
1					5				10					15	
Ser	Thr	Ala	Ile	Gly	Arg	Val	Trp	Leu	Ser	Val	Ile	Phe	Ile	Phe	Arg
				20				25					30		
Ile	Met	Val	Leu	Val	Val	Ala	Ala	Glu	Ser	Val	Trp	Gly	Asp	Glu	Lys
		35				40					45				
Ser	Ser	Phe	Ile	Cys	Asn	Thr	Leu	Gln	Pro	Gly	Cys	Asn	Ser	Val	Cys
	50				55					60					
Tyr	Asp	His	Phe	Phe	Pro	Ile	Ser	His	Val	Arg	Leu	Trp	Ser	Leu	Gln
65					70					75				80	
Leu	Ile	Leu	Val	Ser	Thr	Pro	Ala	Leu	Leu	Val	Ala	Met	His	Val	Ala
				85						90					95

His	Gln	Gln	His	Ile	Glu	Lys	Lys	Met	Leu	Arg	Leu	Glu	Gly	His	Gly
			100					105						110	
Asp	Pro	Leu	His	Leu	Glu	Glu	Val	Lys	Arg	His	Lys	Val	His	Ile	Ser
			115					120						125	
Gly	Thr	Leu	Trp	Trp	Thr	Tyr	Val	Ile	Ser	Val	Val	Phe	Arg	Leu	Leu
			130					135						140	
Phe	Glu	Ala	Val	Phe	Met	Tyr	Val	Phe	Tyr	Leu	Leu	Tyr	Pro	Gly	Tyr
			145					150						155	160
Ala	Met	Val	Arg	Leu	Val	Lys	Cys	Glu	Ala	Phe	Pro	Cys	Pro	Asn	Thr
								165						170	175
Val	Asp	Cys	Phe	Val	Ser	Arg	Pro	Thr	Glu	Lys	Thr	Val	Phe	Thr	Val
								180						185	190
Phe	Met	Leu	Ala	Ala	Ser	Gly	Ile	Cys	Ile	Ile	Leu	Asn	Val	Ala	Glu
								195						200	205
Val	Val	Tyr	Leu	Ile	Ile	Arg	Ala	Cys	Ala	Arg	Arg	Ala	Gln	Arg	Arg
								210						215	220
Ser	Asn	Pro	Pro	Ser	Arg	Lys	Gly	Ser	Gly	Phe	Gly	His	Arg	Leu	Ser
								225						230	235
Pro	Glu	Tyr	Lys	Gln	Asn	Glu	Ile	Asn	Lys	Leu	Leu	Ser	Glu	Gln	Asp
								245						250	255
Gly	Ser	Leu	Lys	Asp	Ile	Leu	Arg	Arg	Ser	Pro	Gly	Thr	Gly	Ala	Gly
								260						265	270
Leu	Ala	Glu	Lys	Ser	Asp	Arg	Cys	Ser	Ala	Cys					
								275						280	

<210> 3

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Artificial insertion sequence obtained from digestion of a plasmid moiety

<400> 3

catcatcacc atcaccattg a

21

<210> 4

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer P1

<400> 4

aacgtggcgc aggtggtgta

20

<210> 5

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Primer P2

<400> 5

atggtgatgg tgatgatggc

20

<210> 6

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Primer P3

<400> 6

gggaaggttt gatggagtaa t

21